

The diagram illustrates a system architecture for controlling a light source and an actuator based on spectral and image data. The system components and their interconnections are as follows:

- Remote Spectral Library (28)** and **IO Interface (30)** are connected by a bidirectional arrow.
- Local Spectral Library (24)** and **Spectral Processor (26)** are connected by a bidirectional arrow.
- Spectral Processor (26)** and **Image Processor (32)** are connected by a bidirectional arrow.
- IO Interface (30)** and **Spectral Processor (26)** are connected by a bidirectional arrow.
- Source Control Interface (20)** receives input from the **Local Spectral Library (24)** and sends output to the **Light Source (14)**.
- Image Acquisition Interface (22)** receives input from the **Image Processor (32)** and sends output to the **Light Source (14)**.
- Actuator Control Interface (23)** receives input from the **Image Processor (32)** and sends output to the **Actuator (15)**.

The physical components and their interactions are shown at the bottom of the diagram:

- The **Light Source (14)** is represented by a small rectangular block.
- The **Actuator (15)** is represented by a larger rectangular block.
- The **Light Source (14)** emits light through a series of lenses or filters (12) onto a target surface (16).
- The target surface (16) is shown with a grid of circular elements (18).
- A wavelength indicator λ is shown above the light path.
- Labels **N1**, **A1**, **N**, and **A** are used to denote specific points or regions on the light path and target surface.

FIG. 1

09828281.040501

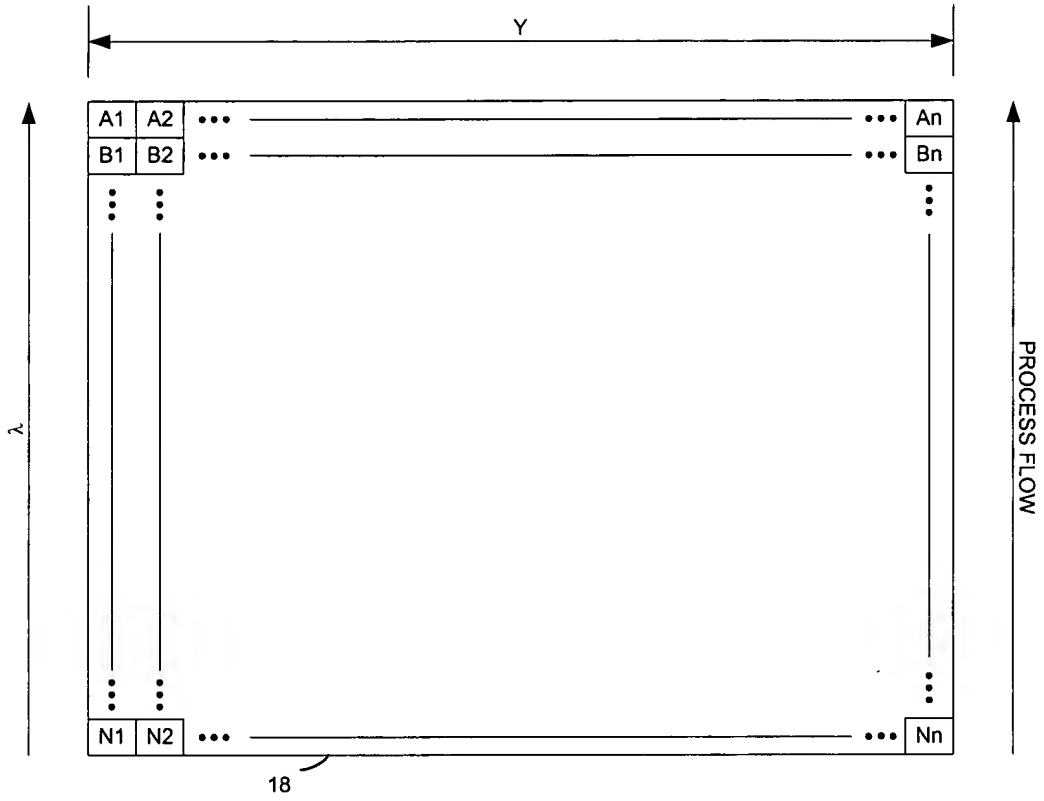


FIG. 2

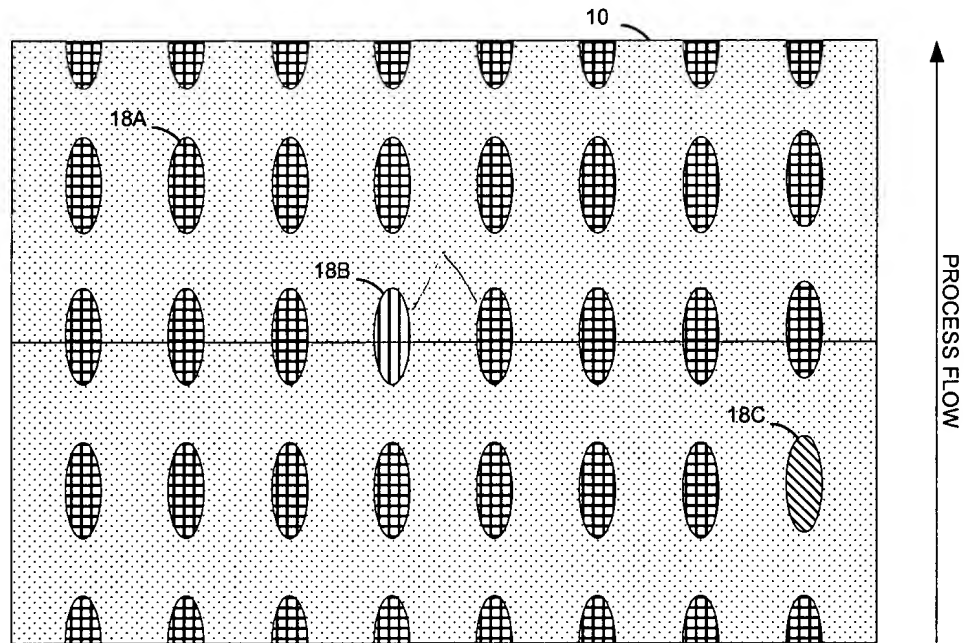


FIG. 3

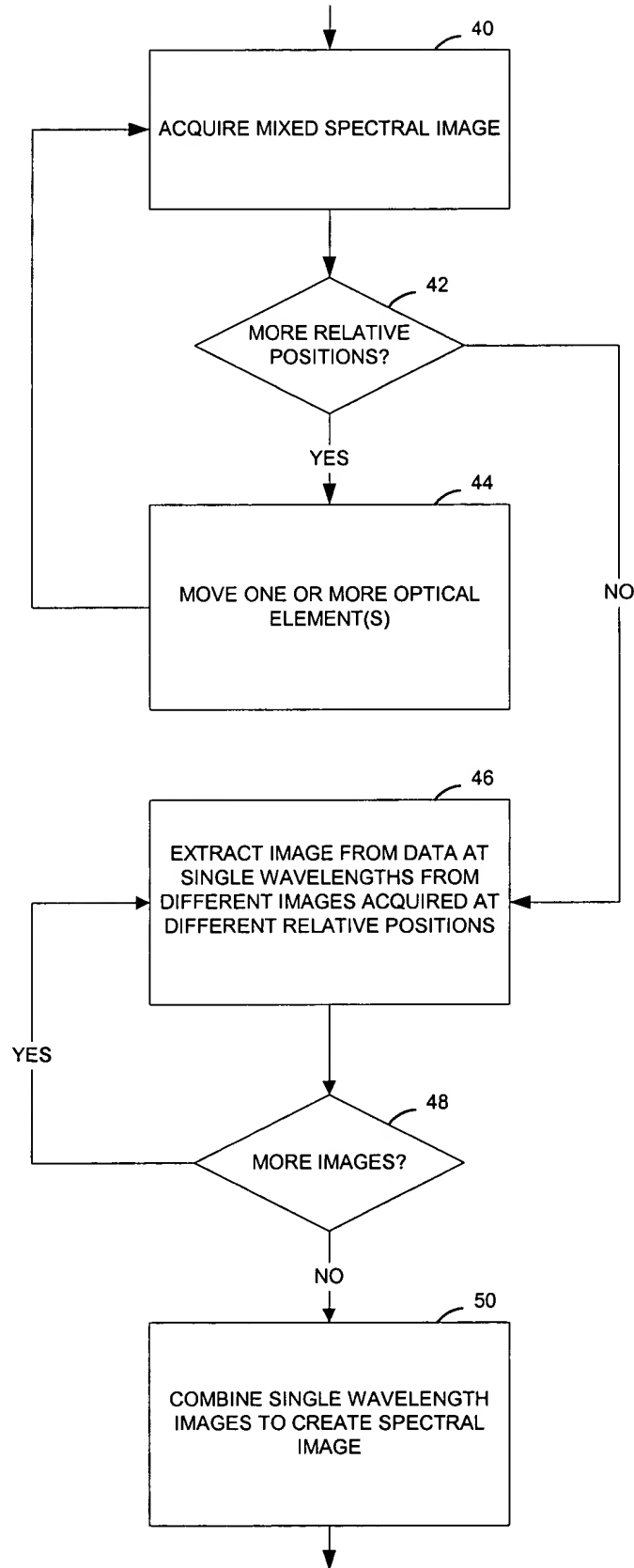


FIG. 4

FIG. 4

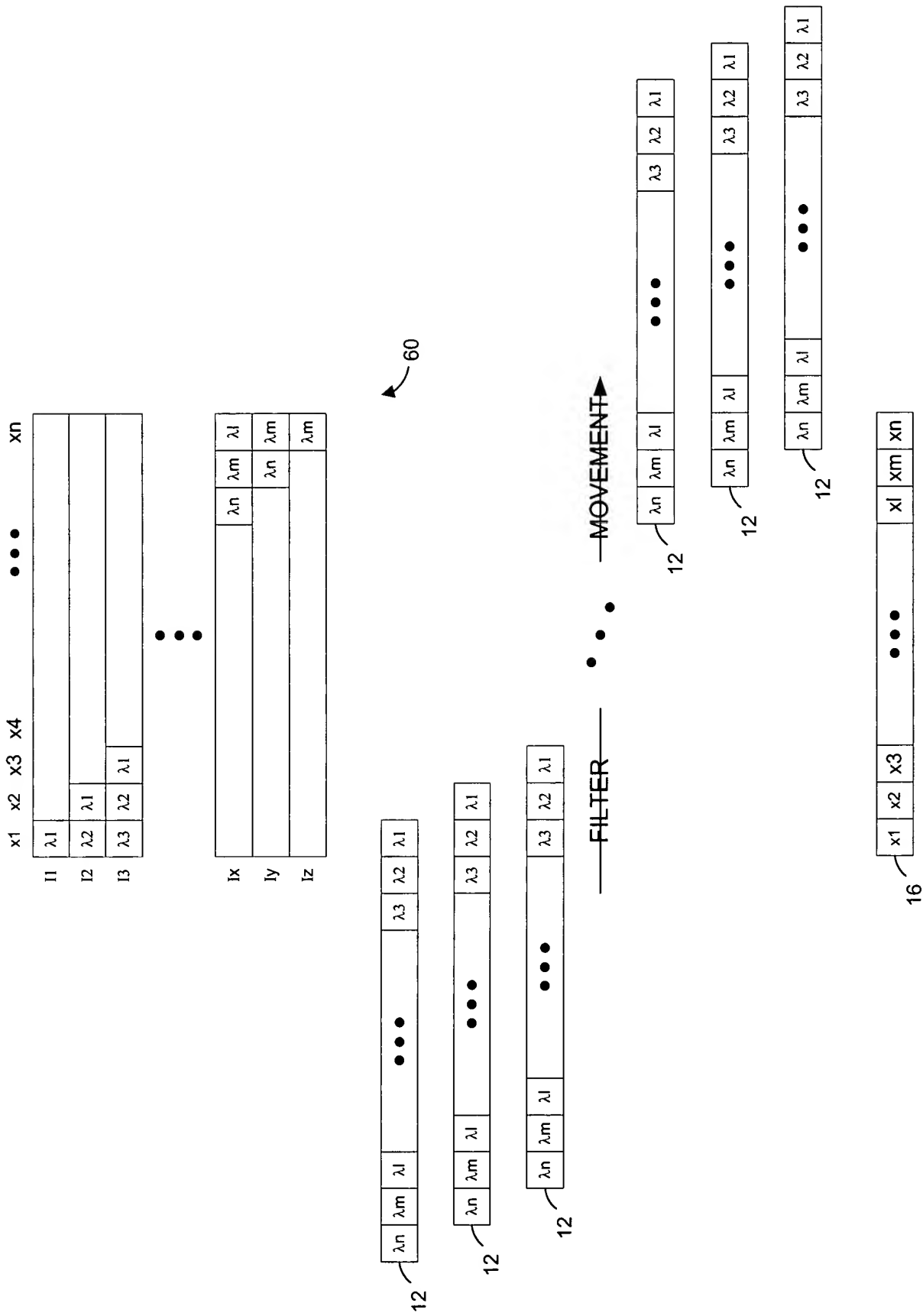


FIG. 5

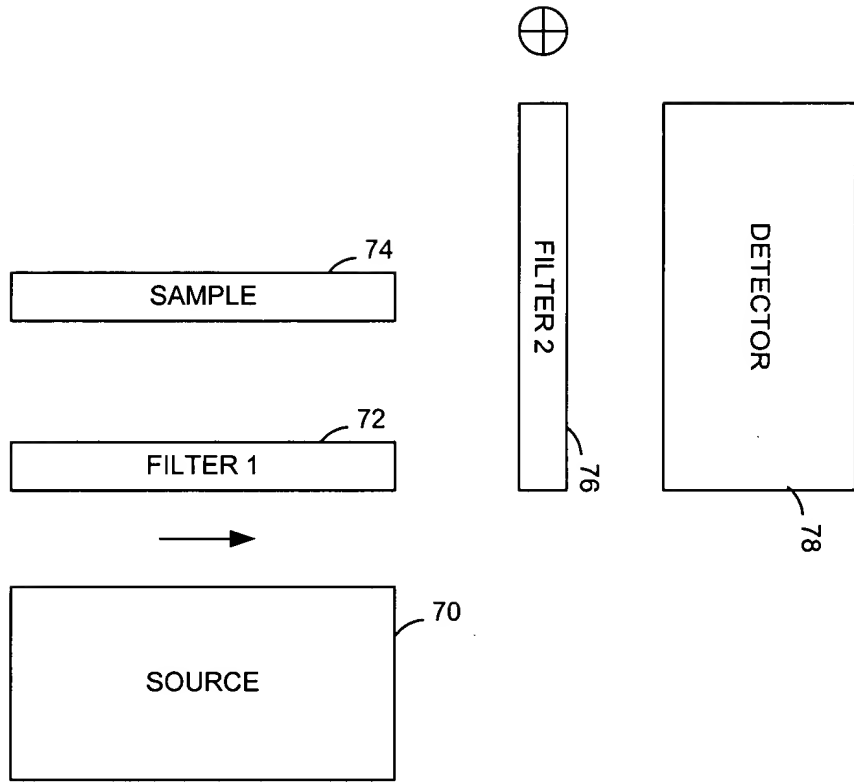


FIG. 7